

REMARKS

I. Introduction

Claims 1-26 are pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

II. The Claim Rejections Under 35 U.S.C. § 103(a) Should Be Withdrawn

Claims 1, 3-11, 13-20 and 26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,462,805 to Wu et al. ("Wu") in view of U.S. Patent No. 4,093,356 to Bigelow ("Bigelow"). (See 10/20/05 Office Action, pp. 2-5).

Wu describes a transflective LCD 300 which includes a circular polarizer 330-A positioned on an outer surface of a front substrate 310-A. A transflective mirror 340 is positioned beneath the front substrate 310-A and on an outer surface of a rear substrate 310-B. Another circular polarizer 330-B is positioned beneath the transflective mirror 340 and above a light source 350. (See Wu, col. 7, ll. 13-54).

Bigelow describes a liquid crystal device which utilizes a quarter wave plate 25 positioned at a 45° angle relative to the direction of the axes of the dye molecules 17 when in quiescent mode (with the direction of the axes when in quiescent mode defined as the Y direction). (See Bigelow, col. 2, ll. 40-44); and a single circular polarizer made of a linear polarizer 40, oriented perpendicular to the direction of the axes of the dye molecules 17 when in quiescent mode (the X direction), in combination with a second quarter wave plate 35, also positioned at a 45° angle relative to the Y axis. (See Bigelow, col. 2, l. 67 - col. 3, l. 4).

The Examiner has correctly recognized that Wu does not disclose or suggest “a first circular X-polarizer” and “a second circular X-polarizer,” but states that Bigelow discloses these elements and that it would have been obvious to one of ordinary skill in the art to modify Wu with Bigelow in order to improve the light utilization efficiency.

Applicants respectfully submit that Bigelow fails to cure the deficiencies of Wu, and does not disclose or suggest “a first circular X-polarizer,” “a liquid crystal display having a first side adjacent to a second side of the first circular X-polarizer,” and “a second circular X-polarizer having a first side adjacent to a second side of the liquid crystal display” as recited in claim 1. The Examiner asserts that Bigelow discloses a linear X-polarizer 40 and the quarter wave plate 35, in conjunction, to function as a first circular X-polarizer. (See 10/20/05 Office Action, p. 3). Next, the Examiner asserts that Bigelow discloses a combination of elements (a second quarter wave plate 25 and an LCD 11) that function as a second circular X-polarizer. (*Id.*) This assertion mis-characterizes Bigelow. While the LCD 11 can be configured to have a polarizing effect on light beams traveling through it, this is dependent upon the position of the dye molecules 17.

However, the Examiner appears to be stating that the X-polarizer 40 and the quarter wave plate 35 of Bigelow could replace the first circular polarizer of Wu, while the second quarter wave plate 25 and the LCD 11 of Bigelow could replace the second circular polarizer of Wu to arrive at the claimed invention. The applicants respectfully submit that this makes no sense. Wu already discloses an LCD 320 and it would be neither commercially nor technically practical to have a dual LCD display. There is no motivation to combine two different LCD screens in the manner suggested by the Examiner.

Moreover, claim 1 recites “a second circular X-polarizer having a first side adjacent to a second side of the liquid crystal display.” Again, the best that can be said of Bigelow is that it may teach that the LCD is a component of a circular X-polarizer. Thus, the LCD cannot be adjacent to itself, unless there was a second LCD, which as described above would not be practical.

Accordingly, neither Wu nor Bigelow, either alone or in combination, teach or suggest “*a first circular X-polarizer*” and “*a second circular X-polarizer having a first side adjacent to a second side of the liquid crystal display*” as recited in claim 1. Because claims 3-9 depend from, and therefore include all of the limitations of, claim 1, it is respectfully submitted that these claims are also allowable.

Claim 10 recites limitations substantially similar to those of claim 1, including “*a first circular X-polarizer*” and “*a second circular X-polarizer.*” Thus, it is respectfully submitted that claim 10 is allowable for at least the reasons stated above with reference to claim 1. Because claims 11 and 13-19 depend from, and therefore include all of the limitations of, claim 10, it is respectfully submitted that these claims are also allowable for at least the reasons stated above with reference to claim 10.

Claim 20 recites limitations substantially similar to those of claim 1, including “*an internal circular X-polarizer*” and “*an external circular X-polarizer.*” Thus, it is respectfully submitted that claim 20 is allowable for at least the reasons stated above with reference to claim 1.

Claim 26 recites limitations substantially similar to those of claim 1, including “*a*

first circular X-polarizer” and “*a second circular X-polarizer.*” Thus, it is respectfully submitted that claim 26 is allowable for at least the reasons stated above with reference to claim 1.

Claims 2 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wu in view of Bigelow in further view of U.S. Patent No. 6,853,421 to Minakuchi (“Minakuchi”) (See 10/20/05 Office Action, p. 5). Applicants respectfully submit that Minakuchi does not cure the above-described deficiencies of Wu and Bigelow. Thus, because claim 2 depends from, and, therefore includes all of the limitations of claim 1, it is respectfully submitted that this claim is also allowable for at least the reasons stated above with reference to claim 1. Because claim 12 depends from, and, therefore includes all of the limitations of claim 10, it is respectfully submitted that this claim is also allowable for at least the reasons stated above with reference to claim 10.

Claims 21-23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wu in view of Bigelow in further view of U.S. Patent No. 6,642,977 to Kotchick et al. (“Kotchick”) (See 10/20/05 Office Action, p. 6). Claim 21 recites limitations substantially similar to claim 1, including “*a first circular X-polarizer*” and “*a second circular X-polarizer.*” Applicants respectfully submit that Kotchick does not cure the above described deficiencies of Wu and Bigelow. Thus, it is respectfully submitted that neither Wu nor Bigelow nor Kotchick, either alone or in combination, discloses or suggests “*a first circular X-polarizer, and “a second circular X-polarizer,*” as recited in claim 21. Therefore, applicants respectfully submit that claim 21 is allowable. Because claims 22 and 23 depend from, and, therefore include all of the limitations of claim 21, it is respectfully submitted that these claims are also allowable.

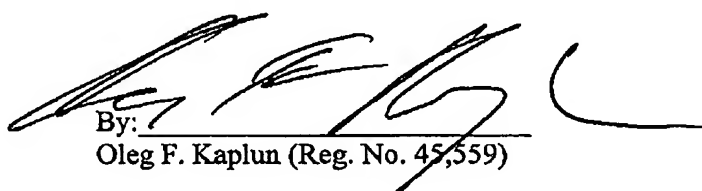
Claims 24 and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Wu in view of Bigelow in view of Kotchick in further view of U.S. Patent No. 5,548,108 to Moldskred et al. ("Moldskred"). (See 10/20/05 Office Action, p. 6). Applicants respectfully submit that Moldskred does not cure the above-mentioned deficiencies of Wu, Bigelow and Kotchick. Thus, because claims 24-25 depend from, and, therefore include all of the limitations of claim 21, it is respectfully submitted that these claims are also allowable for at least the reasons stated above with reference to claim 21.

CONCLUSION

It is therefore respectfully submitted that all of the pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Dated: January 19, 2006


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